

1 **(March 13, 1995)**

2 **Conformity With And Deviations From Plans And Stakes**

3 The first paragraph of Section 1-05.4 is deleted in its entirety and replaced with the
4 following:

5
6 The Contractor shall be responsible for setting and maintaining all alignment
7 stakes, slope stakes, and grades necessary for the construction of the roadbed,
8 surfacing, paving, channelization, illumination, signing, bridges, noise walls and
9 retaining walls, if such construction is included in this project. Except for the
10 survey control data to be furnished by the Contracting Agency, calculations,
11 surveying, and measuring required for setting and maintaining the necessary lines
12 and grades shall be the Contractor's responsibility. The Contractor shall provide
13 the Contracting Agency copies of such calculations and staking data when
14 requested by the Engineer. Copies of the Contracting Agency provided survey
15 control data are available for the bidder's inspection at the office of the Engineer.

16
17 Any staking requirements for the project that do not fit field conditions will be
18 reviewed and if necessary adjusted by the Engineer. Any necessary revision to
19 the staking information will be provided to the Contractor for use in completing the
20 work.

21
22 To facilitate the establishment of these lines and elevations, the Contracting
23 Agency will provide the Contractor with the following survey control:

24
25 **Roadbed, Surfacing, and Paving**

- 26 1. Elevation benchmarks and center line alignment control points for the
27 main line, one time only.
28
29 2. Technical advice if requested.
30
31 3. Computed grades where needed.
32
33 4. Horizontal curve deflections.
34
35 5. One copy of transit notes showing reference to control points.
36

37 **Bridges, Noise Walls and Retaining Walls**

- 38 1. An elevation bench mark and two points on roadway center line in the
39 vicinity of each bridge, noise wall and retaining wall, one time only.
40
41 2. Technical advice if requested.
42
43 3. Computed elevations at the top of the roadway deck at 0.1 points along
44 center line of each girder web. (All form grades, etc., shall be computed
45 by the Contractor).
46
47 4. One copy of transit notes showing references to control points in the
48 vicinity of the bridge, noise wall or retaining wall.
49

50 The Contractor shall give the Contracting Agency three weeks notification to allow
51 adequate time to provide the above data.

52
53 The Contractor shall ensure a surveying accuracy within the following tolerances:

- 54
55 1. Slope stakes ± 0.1 foot
56 2. Subgrade blue tops set 0.05 below grade ± 0.01 foot

1	3. Stationing	±0.01 foot
2	4. Alignment	±0.01 foot
3	5. Surfacing red and yellow tops	±0.01 foot
4	6. Paving pins for surfacing or paving	±0.005 foot
5	7. Superstructure elevations	±0.005 foot
6		variation from
7		plan elevation
8	8. Substructure	±0.02 foot
9		variation from
10		plan grades.

11
12 The Contractor shall slope stake the roadway before any construction may
13 proceed. Slope stake offsets shall be maintained for the duration of the project
14 unless otherwise approved by the Engineer.

15
16 Slope stakes shall be set at 50-foot intervals.

17
18 Subgrade bluetops and surfacing red and yellow tops shall be set at 50 foot
19 intervals in tangent sections, 25 foot intervals in curve sections, and 10 foot
20 intervals in intersection radii.

21
22 Paving pins shall be at 25-foot intervals.

23
24 At the Contracting Agency's discretion, it may spot-check the Contractor's
25 surveying. These spot-checks will not change the requirements for normal
26 checking and testing as described elsewhere, and do not relieve the Contractor of
27 the responsibility of producing a finished product that is in accordance with the
28 contract.

29
30 In all disputes concerning accuracy of lines and elevations, the Contracting
31 Agency shall be assumed correct and the Contractor shall correct the
32 discrepancies before construction work may proceed. No additional
33 compensation will be paid for this corrective work.

34
35 ***Payment***

36 Payment will be made in accordance with Section 1-04.1 for the following bid
37 item:

- 38
39 1. "Surveying", lump sum